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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,101	12/29/2003	Shih-Li Hsu	2003-049-ICE	9599

7590 01/19/2006

Timothy R. Schulte  
Storage Technology Corporation  
One StorageTek Drive  
Louisville, CO 80028-4309

EXAMINER
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MOAZZAMI, NASSER G

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/750,101	<b>Applicant(s)</b> HSU ET AL.	
	<b>Examiner</b> Nasser G. Moazzami	<b>Art Unit</b> 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,10,11,14 and 19 is/are rejected.
- 7) ☒ Claim(s) 3,4,6-9,12,13,15-18 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 5, 8-9, 14, and 17-18 are objected to because of the following informalities:

#### **Claim 5**

Line 4, "drive" should be change to --device--.

#### **Claim 8**

Line 3, "drive" should be change to --device--.

#### **Claim 9**

Line 4, "drive" should be change to --device--.

#### **Claim 14**

Line 5, "drive" should be change to --device--.

#### **Claim 17**

Line 4, "drive" should be change to --device--.

#### **Claim 18**

Line 5, "drive" should be change to --device--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 5, 10-11, 14, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Bates (US Patent No. 6,253,289).

As per claim 1, Bates discloses a method in a storage device for dynamically determining and adjusting a number of data blocks to be prestaged in a cache included in said storage device, said method comprising the steps of: receiving and processing a plurality of input/output (I/O) requests by said storage device **[plurality of requests from the host (column 1, lines 61-62)]**; accumulating information about said plurality of I/O requests and said processing of future I/O requests by said storage device **[building a history table of recent I/O requests (column 6, lines 14-25)]**; and utilizing said accumulated information to dynamically adjust a prestaging policy as said storage device receives and processes said plurality of requests, said prestaging policy defining a current number of data blocks to be prestaged in said cache **[determining the size of the record data to be pre-fetched (column 1, lines 37-38)]**.

As per claims 2, and 5, Bates discloses that said receiving and processing a plurality of input/output (I/O) requests by said storage device further comprises receiving and processing a plurality of contiguous, sequential input/output (I/O) requests by said storage device and accumulating information further includes, determining a current

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utilization of said storage device [sequential requests from the host (column 1, lines 61-62); determining the size of the data to be pre-fetched (column 1, lines 37-38)].

As per claims 10-11, 14, and 19, claims 10-11, 14, and 19 encompass the same scope of the invention as those of claims 1-2, and 5. Therefore, claims 10-11, 14, and 19 are rejected for the same reasons as stated above with respect to claims 1-2, and 5.

#### ***Allowable Subject Matter***

4. Claims 3-4, 6-10, 12-13, 15-18 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser G. Moazzami whose telephone number is (571) 272-4195. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**NASSER MOAZZAMI**  
**PRIMARY EXAMINER**

01/17/2006